

Use Attainability Analysis

for

WBID 3321 Holmes Creek

Submitted by

Missouri Department of Natural Resources Staff

To

Missouri Department of Natural Resources
Water Protection Program

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Field Data Sheets for Recreational Use Stream Surveys

WATER PROTECTION PROGRAM

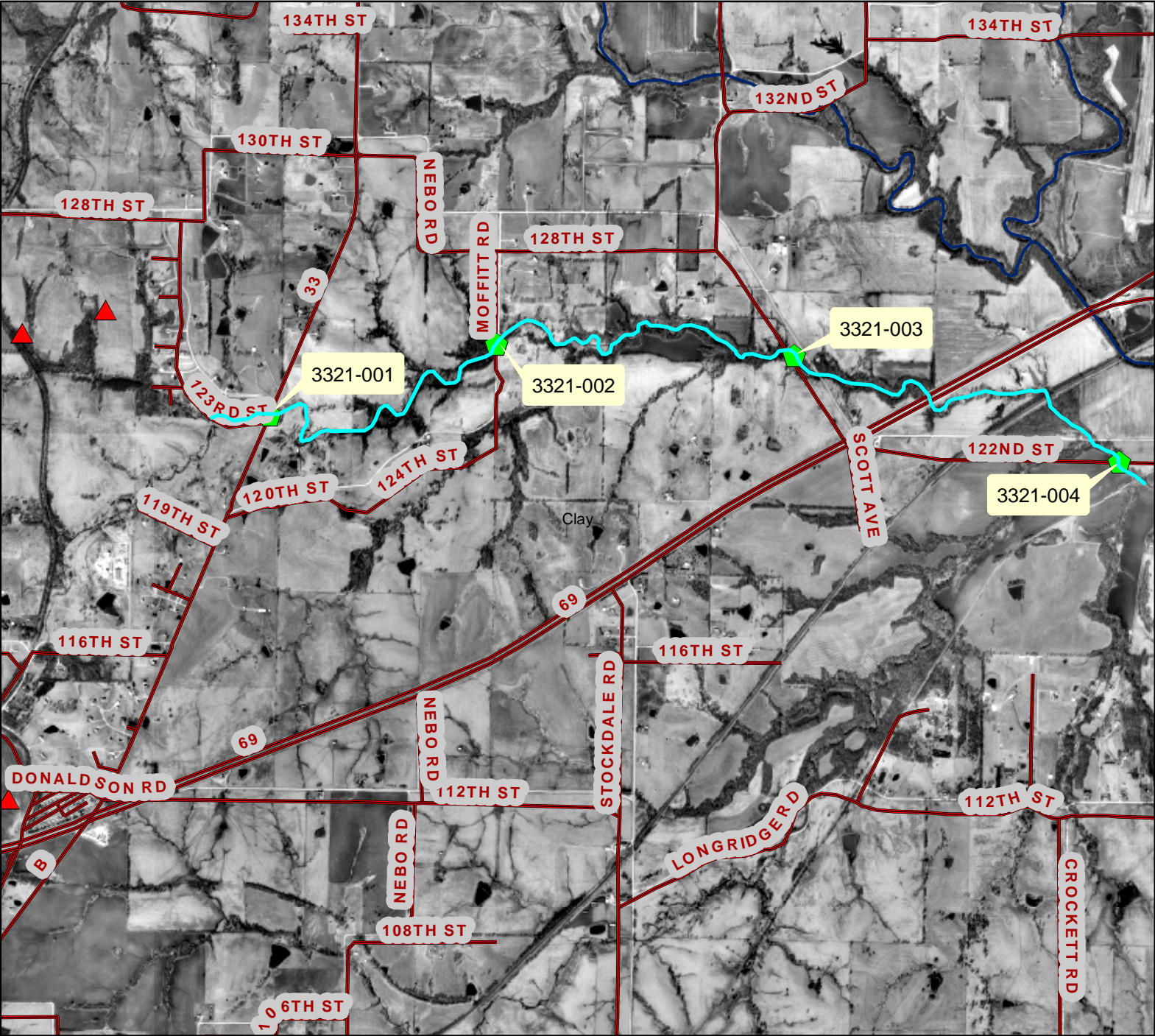
Data Sheet A - Water Body Identification

| | |
|---|--|
| Water Body Name: (from USGS 7.5' quad) | Holmes Creek |
| 8-digit HUC: | 10300101 |
| Missouri WBID #: | 3321 |
| County: | Clay |
| Upstream Legal Description: | Holmes Creek + Chandler Rd, Liberty, MO |
| Downstream Legal Description: | Holmes Creek + Summerette |
| Upstream Coordinates: (UGS 84, ddd.dddd) | N. 39.29859, W. 094.38342 |
| Downstream Coordinates: (UGS 84, ddd.dddd) | N. 39.31662 N. 39.31663, W. 094.33076 |
| Discharger Facility Name(s): | Liberty Village MHP, Platte Clay / Holmes CR HIL |
| Discharger Permit Number(s): | M00085855 M00119148 |
| Number of Sites Evaluated: | 3 |
| Name of Surveyor and Telephone Number: | Michael Cunningham / 816-622-7016 |
| Organization: | MONR / ICRO |
| Position: | Environmental Specialist |





I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

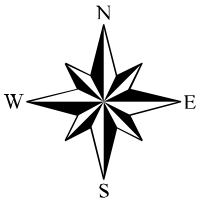
Signed: Michael R. Cunningham Date: 6/23/05

Holmes Creek (C) #3321 Clay County



Legend

-  Roads
-  Point Sources
-  Classified Waterbodies
-  Counties



Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

| | | | |
|---|----------------------------|--|--|
| Missouri WBID #: 3321 | | Site Location Description: Site 01 | |
| Site GPS Coordinates: N 39.29859 W 094.38342 | | Holmes Creek + Chandler Rd, Liberty, MO | |
| Date & Time: 6/23/05 @ 14:50 | | Facility Name: Liberty Village near Platte Clay/Holmes CR H12 | |
| Personnel: M. Cunningham | | Permit Number: MO 0085855 MO 0119148 | |
| Current Weather Conditions: 90°F, Clear | | Weather Conditions for Past 7 days: Hot + Humid | |
| Photo Ids: Upstream: 1, 2, 3 | Downstream: 4, 5, 6 | Other: — | |

Uses Observed*:

| | | | | |
|---------------------------------------|--------------------------------------|---------------------------------------|---|---------------------------------------|
| <input type="checkbox"/> Swimming | <input type="checkbox"/> Skin diving | <input type="checkbox"/> SCUBA diving | <input type="checkbox"/> Tubing | <input type="checkbox"/> Water skiing |
| <input type="checkbox"/> Wind surfing | <input type="checkbox"/> Kayaking | <input type="checkbox"/> Boating | <input type="checkbox"/> Wading | <input type="checkbox"/> Rafting |
| <input type="checkbox"/> Hunting | <input type="checkbox"/> Trapping | <input type="checkbox"/> Fishing | <input checked="" type="checkbox"/> None of the above | <input type="checkbox"/> Other: |

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

| | | | | |
|--|--------------------------------------|---|--|---|
| <input type="checkbox"/> City/county parks | <input type="checkbox"/> Playgrounds | <input type="checkbox"/> MDC conservation lands | <input type="checkbox"/> Urban areas | <input type="checkbox"/> Campgrounds |
| <input type="checkbox"/> Boating accesses | <input type="checkbox"/> State parks | <input type="checkbox"/> National forests | <input type="checkbox"/> Nature trails | <input type="checkbox"/> Stairs/walkway |
| <input type="checkbox"/> No trespass sign | <input type="checkbox"/> Fence | <input type="checkbox"/> Steep slopes | <input checked="" type="checkbox"/> Other: Residence NE of bridge | |

Evidence of Human Use*:

| | | | | |
|---|--|--|---|--|
| <input type="checkbox"/> Roads | <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Dock/platform | <input type="checkbox"/> Livestock Watering | <input type="checkbox"/> RV / ATV Tracks |
| <input type="checkbox"/> Rope swings | <input type="checkbox"/> Camping Sites | <input type="checkbox"/> Fire pit/ring | <input type="checkbox"/> NPDES Discharge | <input type="checkbox"/> Fishing Tackle |
| <input type="checkbox"/> Other: None | | | | |

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:

Upstream View Physical Dimensions:

| | | | | |
|--|----------------------|---|---|-------------------------------|
| <input type="checkbox"/> Riffle | Width (ft): | Length (ft): | Avg. Depth (ft): | Max. Depth (ft): |
| <input checked="" type="checkbox"/> Run | Width (ft): <u>4</u> | Length (ft): <u>100 ft</u> | Avg. Depth (ft): <u>1/2</u> | Max. Depth (ft): <u>1 1/2</u> |
| <input type="checkbox"/> Pool | Width (ft): | Length (ft): | Avg. Depth (ft): | Max. Depth (ft): |
| <input checked="" type="checkbox"/> Flow | Present? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Estimated (ft ³ /sec): <u>1/2 ft³/sec</u> | |

Downstream View Physical Dimensions:

| | | | | |
|--|----------------------|---|--|---------------------------|
| <input type="checkbox"/> Riffle | Width (ft): | Length (ft): | Avg. Depth (ft): | Max. Depth (ft): |
| <input type="checkbox"/> Run | Width (ft): | Length (ft): | Avg. Depth (ft): | Max. Depth (ft): |
| <input checked="" type="checkbox"/> Pool | Width (ft): <u>4</u> | Length (ft): <u>8</u> | Avg. Depth (ft): <u>1</u> | Max. Depth (ft): <u>2</u> |
| <input checked="" type="checkbox"/> Flow | Present? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Estimated (ft ³ /sec): <u>1/2 ft³/sec.</u> | |

Substrate*: (These values should add up to 100%.)

| | | | | | |
|--------------------|--------------------|------------------|------------------|---------------------|--------------------|
| <u>40</u> % Cobble | <u>30</u> % Gravel | <u>15</u> % Sand | <u>15</u> % Silt | <u>0</u> % Mud/Clay | <u>0</u> % Bedrock |
|--------------------|--------------------|------------------|------------------|---------------------|--------------------|

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

| |
|---|
| <u>- Some algal growth on rocks</u> <u>- Brush + trees fully covering banks.</u> |
|---|

Water Characteristics*: (Mark all that apply.)

| | | | | | |
|------------------|---------------------------------|---------------------------------|--|--|---------------------------------|
| Odor: | <input type="checkbox"/> Sewage | <input type="checkbox"/> Musky | <input type="checkbox"/> Chemical | <input checked="" type="checkbox"/> None | <input type="checkbox"/> Other: |
| Color: | <input type="checkbox"/> Clear | <input type="checkbox"/> Green | <input checked="" type="checkbox"/> Gray | <input type="checkbox"/> Milky | <input type="checkbox"/> Other: |
| Bottom Deposit: | <input type="checkbox"/> Sludge | <input type="checkbox"/> Solids | <input checked="" type="checkbox"/> Fine sediments | <input type="checkbox"/> None | <input type="checkbox"/> Other: |
| Surface Deposit: | <input type="checkbox"/> Oil | <input type="checkbox"/> Scum | <input type="checkbox"/> Foam | <input checked="" type="checkbox"/> None | <input type="checkbox"/> Other: |

Comments: Please attach additional comments (including information from interviews) to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: M. A. C. [Signature] Date: 6/23/05
 Organization: MONR / KCRD Position: E. S. I

3321_001_US



3321_001_DS



Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

| | |
|---|---|
| Missouri WBID #: 3321 | Site Location Description: Site 02 |
| Site GPS Coordinates: N. 39.31448 W. 094.36612 | Holmes Creek + Hwy. 33 |
| Date & Time: 6/23/05 @ 15:30 | Facility Name: Liberty Village MNP Plate Clay Holmes Cr Hill |
| Personnel: M. Cunningham | Permit Number: MO0085855 MO0119148 |
| Current Weather Conditions: 90°F, Clear | Weather Conditions for Past 7 days: Hot + Humid. |
| Photo Ids: Upstream: 7, 8, 9 | Downstream: 10, 11, 12 Other: — |

Uses Observed*:

| | | | | |
|---------------------------------------|--------------------------------------|---------------------------------------|---|---------------------------------------|
| <input type="checkbox"/> Swimming | <input type="checkbox"/> Skin diving | <input type="checkbox"/> SCUBA diving | <input type="checkbox"/> Tubing | <input type="checkbox"/> Water skiing |
| <input type="checkbox"/> Wind surfing | <input type="checkbox"/> Kayaking | <input type="checkbox"/> Boating | <input type="checkbox"/> Wading | <input type="checkbox"/> Rafting |
| <input type="checkbox"/> Hunting | <input type="checkbox"/> Trapping | <input type="checkbox"/> Fishing | <input checked="" type="checkbox"/> None of the above | <input type="checkbox"/> Other: |

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

| | | | | |
|--|--------------------------------------|---|---|---|
| <input type="checkbox"/> City/county parks | <input type="checkbox"/> Playgrounds | <input type="checkbox"/> MDC conservation lands | <input type="checkbox"/> Urban areas | <input type="checkbox"/> Campgrounds |
| <input type="checkbox"/> Boating accesses | <input type="checkbox"/> State parks | <input type="checkbox"/> National forests | <input type="checkbox"/> Nature trails | <input type="checkbox"/> Stairs/walkway |
| <input type="checkbox"/> No trespass sign | <input type="checkbox"/> Fence | <input type="checkbox"/> Steep slopes | <input checked="" type="checkbox"/> Other: Nearby Residences + Pasture | |

Evidence of Human Use*:

| | | | | |
|---|--|--|---|--|
| <input type="checkbox"/> Roads | <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Dock/platform | <input type="checkbox"/> Livestock Watering | <input type="checkbox"/> RV / ATV Tracks |
| <input type="checkbox"/> Rope swings | <input type="checkbox"/> Camping Sites | <input type="checkbox"/> Fire pit/ring | <input type="checkbox"/> NPDES Discharge | <input type="checkbox"/> Fishing Tackle |
| <input type="checkbox"/> Other: None | | | | |

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:

Upstream View Physical Dimensions:

| | | | | |
|---|---|-----------------------------|--|---------------------------|
| <input type="checkbox"/> Riffle | Width (ft): | Length (ft): | Avg. Depth (ft): | Max. Depth (ft): |
| <input checked="" type="checkbox"/> Run | Width (ft): <u>15</u> | Length (ft): <u>300+</u> | Avg. Depth (ft): <u>3</u> | Max. Depth (ft): <u>5</u> |
| <input type="checkbox"/> Pool | Width (ft): | Length (ft): | Avg. Depth (ft): | Max. Depth (ft): |
| <input checked="" type="checkbox"/> Flow Present? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Estimated (ft ³ /sec): <u>1/4 ft³/sec.</u> | |

Downstream View Physical Dimensions:

| | | | | |
|---|---|-----------------------------|---|---------------------------|
| <input type="checkbox"/> Riffle | Width (ft): | Length (ft): | Avg. Depth (ft): | Max. Depth (ft): |
| <input type="checkbox"/> Run | Width (ft): | Length (ft): | Avg. Depth (ft): | Max. Depth (ft): |
| <input checked="" type="checkbox"/> Pool | Width (ft): <u>20</u> | Length (ft): <u>50</u> | Avg. Depth (ft): <u>4</u> | Max. Depth (ft): <u>5</u> |
| <input checked="" type="checkbox"/> Flow Present? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Estimated (ft ³ /sec): <u>1/2 ft³/sec</u> | |

Substrate*: (These values should add up to 100%.)

| | | | | | |
|-------------------|-------------------|-----------------|------------------|----------------------|-----------|
| <u>0</u> % Cobble | <u>0</u> % Gravel | <u>0</u> % Sand | <u>40</u> % Silt | <u>60</u> % Mud/Clay | % Bedrock |
|-------------------|-------------------|-----------------|------------------|----------------------|-----------|

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

| |
|--|
| <u>Algae growth - grass cover on banks</u> |
|--|

Water Characteristics*: (Mark all that apply.)

| | | | | | |
|------------------|---------------------------------|---------------------------------|--|--|---------------------------------|
| Odor: | <input type="checkbox"/> Sewage | <input type="checkbox"/> Musky | <input type="checkbox"/> Chemical | <input checked="" type="checkbox"/> None | <input type="checkbox"/> Other: |
| Color: | <input type="checkbox"/> Clear | <input type="checkbox"/> Green | <input checked="" type="checkbox"/> Gray | <input type="checkbox"/> Milky | <input type="checkbox"/> Other: |
| Bottom Deposit: | <input type="checkbox"/> Sludge | <input type="checkbox"/> Solids | <input checked="" type="checkbox"/> Fine sediments | <input type="checkbox"/> None | <input type="checkbox"/> Other: |
| Surface Deposit: | <input type="checkbox"/> Oil | <input type="checkbox"/> Scum | <input type="checkbox"/> Foam | <input checked="" type="checkbox"/> None | <input type="checkbox"/> Other: |

Comments: Please attach additional comments (including information from interviews) to this form.

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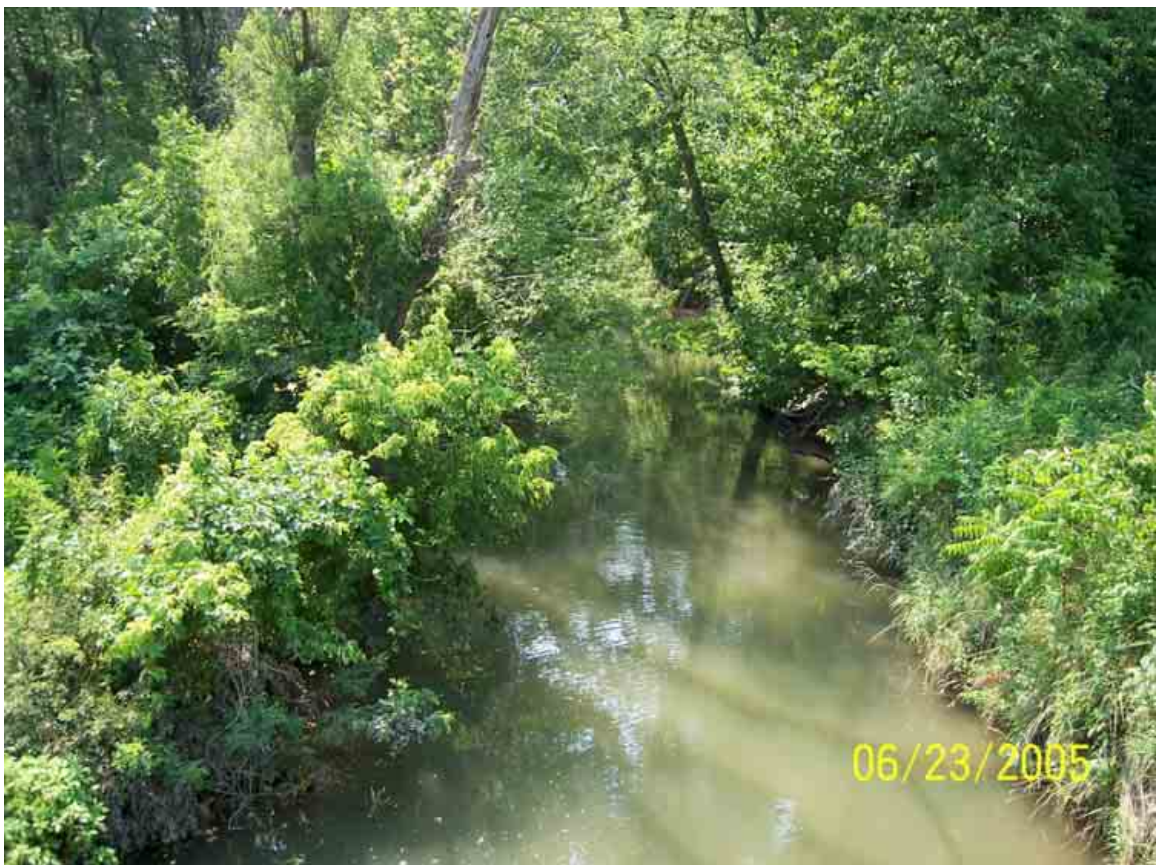
I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Mitchell A. Coughlin Date: 6/23/05
 Organization: MDNR/KCRO Position: E.S. I

3321_002_US



3321_002_US





Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

| | |
|---|--|
| Missouri WBID #: 3321 | Site Location Description: 03 |
| Site GPS Coordinates: N. 39.31663 W. 094.33076 | Holmes Creek + Summerette |
| Date & Time: 6/23/05 @ 16:05 | Facility Name: Liberty Village MHP State Hwy 7 Holmes CR Hill |
| Personnel: M. Cunningham | Permit Number: MO 0085865, MO 0119148 |
| Current Weather Conditions: 90°F, Clear | Weather Conditions for Past 7 days: Hot + Humid. |
| Photo Ids: Upstream: 13, 14, 15 | Downstream: 16, 17, 18 Other: --- |

Uses Observed*:

| | | | | |
|---------------------------------------|--------------------------------------|---------------------------------------|---|---------------------------------------|
| <input type="checkbox"/> Swimming | <input type="checkbox"/> Skin diving | <input type="checkbox"/> SCUBA diving | <input type="checkbox"/> Tubing | <input type="checkbox"/> Water skiing |
| <input type="checkbox"/> Wind surfing | <input type="checkbox"/> Kayaking | <input type="checkbox"/> Boating | <input type="checkbox"/> Wading | <input type="checkbox"/> Rafting |
| <input type="checkbox"/> Hunting | <input type="checkbox"/> Trapping | <input type="checkbox"/> Fishing | <input checked="" type="checkbox"/> None of the above | <input type="checkbox"/> Other: |

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

| | | | | |
|--|--------------------------------------|---|---|---|
| <input type="checkbox"/> City/county parks | <input type="checkbox"/> Playgrounds | <input type="checkbox"/> MDC conservation lands | <input type="checkbox"/> Urban areas | <input type="checkbox"/> Campgrounds |
| <input type="checkbox"/> Boating accesses | <input type="checkbox"/> State parks | <input type="checkbox"/> National forests | <input type="checkbox"/> Nature trails | <input type="checkbox"/> Stairs/walkway |
| <input type="checkbox"/> No trespass sign | <input type="checkbox"/> Fence | <input type="checkbox"/> Steep slopes | <input checked="" type="checkbox"/> Other: Field, Metal Building | |

Evidence of Human Use*:

| | | | | |
|---|--|--|---|--|
| <input type="checkbox"/> Roads | <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Dock/platform | <input type="checkbox"/> Livestock Watering | <input type="checkbox"/> RV / ATV Tracks |
| <input type="checkbox"/> Rope swings | <input type="checkbox"/> Camping Sites | <input type="checkbox"/> Fire pit/ring | <input type="checkbox"/> NPDES Discharge | <input type="checkbox"/> Fishing Tackle |
| <input type="checkbox"/> Other: None | | | | |

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:

Upstream View Physical Dimensions:

| | | | | |
|--|-----------------------|---|---|---------------------------|
| <input type="checkbox"/> Riffle | Width (ft): | Length (ft): | Avg. Depth (ft): | Max. Depth (ft): |
| <input checked="" type="checkbox"/> Run | Width (ft): <u>10</u> | Length (ft): <u>80</u> | Avg. Depth (ft): <u>3</u> | Max. Depth (ft): <u>4</u> |
| <input type="checkbox"/> Pool | Width (ft): | Length (ft): | Avg. Depth (ft): | Max. Depth (ft): |
| <input checked="" type="checkbox"/> Flow | Present? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Estimated (ft ³ /sec): <u>143/sec.</u> | |

Downstream View Physical Dimensions:

| | | | | |
|--|-----------------------|---|--|---------------------------|
| <input type="checkbox"/> Riffle | Width (ft): | Length (ft): | Avg. Depth (ft): | Max. Depth (ft): |
| <input checked="" type="checkbox"/> Run | Width (ft): <u>15</u> | Length (ft): <u>300+</u> | Avg. Depth (ft): <u>2</u> | Max. Depth (ft): <u>3</u> |
| <input type="checkbox"/> Pool | Width (ft): | Length (ft): | Avg. Depth (ft): | Max. Depth (ft): |
| <input checked="" type="checkbox"/> Flow | Present? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Estimated (ft ³ /sec): <u>143/sec</u> | |

Substrate*: (These values should add up to 100%.)

| | | | | | |
|--------------------|--------------------|------------------|------------------|---------------------|--------------------|
| <u>50</u> % Cobble | <u>10</u> % Gravel | <u>20</u> % Sand | <u>20</u> % Silt | <u>0</u> % Mud/Clay | <u>0</u> % Bedrock |
|--------------------|--------------------|------------------|------------------|---------------------|--------------------|

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

| |
|--|
| <u>Minimal Algae</u> <u>Banks 50% 75% brush covered</u> |
|--|

Water Characteristics*: (Mark all that apply.)

| | | | | | |
|------------------|---------------------------------|---------------------------------|--|--|---------------------------------|
| Odor: | <input type="checkbox"/> Sewage | <input type="checkbox"/> Musky | <input type="checkbox"/> Chemical | <input checked="" type="checkbox"/> None | <input type="checkbox"/> Other: |
| Color: | <input type="checkbox"/> Clear | <input type="checkbox"/> Green | <input checked="" type="checkbox"/> Gray | <input type="checkbox"/> Milky | <input type="checkbox"/> Other: |
| Bottom Deposit: | <input type="checkbox"/> Sludge | <input type="checkbox"/> Solids | <input checked="" type="checkbox"/> Fine sediments | <input type="checkbox"/> None | <input type="checkbox"/> Other: |
| Surface Deposit: | <input type="checkbox"/> Oil | <input type="checkbox"/> Scum | <input type="checkbox"/> Foam | <input checked="" type="checkbox"/> None | <input type="checkbox"/> Other: |

Comments: Please attach additional comments (including information from interviews) to this form.

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Michael R. C. [Signature] Date: 6/23/05
 Organization: MDNR/KERO Position: E.S. 1

3321_003_US



3321_003_DS

